

REMARKS

The final Office Action dated April 21, 2004 has been carefully reviewed and the foregoing remarks are made in response thereto. Applicants appreciate the efforts of the Examiner and her supervisor in discussing the merits of the rejection on multiple occasions. The amendments contained herein are in response to those discussions. In view of the above claim amendments and following remarks, Applicant respectfully requests reconsideration and reexamination of this application and timely allowance of the pending claims.

By this Amendment, claims 97 to 101, 115 and 122 to 124 122 and 123 have been amended. Applicants submit that no new prohibited matter has been introduced by the amendments and that while written support for the amendments can be found throughout the specification, examples of specific support for the claim amendments can be found in Figure 1 and in Table 7 on page 32.

Summary of the Office Action

1. The restriction response was made final but claims 122 to 124 were rejoined with the elected claims in view of amendments to these claims.
2. The priority information in the specification was objected to by the Examiner.
3. Claims 97 to 101, 103 and 105 to 124 were rejected under 35 U.S.C. 112 (first paragraph) for purportedly not being enabled by the specification.
4. Claims 97 to 101, 103 and 105 to 124 were rejected under 35 U.S.C. 112 (second paragraph) for purportedly being indefinite.
5. Claims 97 to 101, 103 and 105 to 124 were rejected under the judicially created doctrine of obviousness type double patenting.

Objection to the Priority Information in the Specification

Applicants have amended the priority information to clarify the relationship of the present application of being a continuation-in-part of two separate applications (*i.e.*, U.S. Applications 08/905,772 and 09/084,471). Applicants have also amended the priority information to update the status of each of the priority applications where applicable. In view of these amendments, Applicants request withdrawal of the objection.

Rejection under 35 U.S.C. 112 (first paragraph)

Claims 97 to 101, 103 and 105 to 124 were rejected under 35 U.S.C. 112 (first paragraph) for purportedly not being enabled by the specification. Applicants appreciate the input from the Examiner in multiple telephone discussions regarding claim language which is enabled by the specification. In view of these discussions, but without acquiescing to the merits of the rejection, Applicants have amended the claims such that they are directed to determining the presence of an omi1 haplotype by detecting the presence of each of the recited variations in the nucleotide or amino acid sequence. As further support that the subject matter of amended claims is enabled by the specification, Applicants bring to the attention of the Examiner the statements in the previous Office Action indicating that such subject matter is enabled by the specification (see Office Action dated April 21, 2004 at page 3). In view of these claim amendments, Applicants submit that the rejection is moot and request withdrawal of the rejection.

Rejection under 35 U.S.C. 112 (second paragraph)

Claims 97 to 101, 103 and 105 to 124 were rejected under 35 U.S.C. 112 (second paragraph) for purportedly being indefinite. The Examiner purports that it is unclear how the presence of a variation indicates the haplotype. Without acquiescing to the merits of the rejection, Applicants have amended these claims to recite distinct variations at defined positions which indicate a specified haplotype (*i.e.*, omi1). In view of these claim amendments, Applicants submit that the rejection is moot and request withdrawal of the rejection.

Obviousness-type Double Patenting Rejections

Claims 97 to 101, 103 and 105 to 124 were rejected under the judicially created doctrine of obviousness type double patenting. Applicants respectfully request that these rejections be held in abeyance until a finding of allowable subject matter is made by the Examiner with the understanding that Applicants can file a terminal disclaimer at a later date.

Conclusion

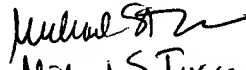
The foregoing remarks are being made to place the application in better condition for appeal. Applicant respectfully requests reconsideration and entry of the amendments. A favorable action is awaited. Should the Examiner find that an interview would be helpful to further prosecution of this application, she is invited to telephone the undersigned at her convenience.

If there are any fees due in connection with the filing of this amendment, please charge the fees to our Deposit Account No. 50-310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Except for issue fees payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **constructive petition for extension of time** in accordance with 37 C.F.R. 1.136(a)(3).

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